Amendments to the Claims

1. *(Currently Amended)*   A method for distributing candidate motion vectors, the method comprising:

dividing a picture frame (110) into a plurality of segments (120), each segment (120) comprising a plurality of pixel blocks (130);

measuring local motion complexity for each segment (120); and

assigning a number of candidate motion vectors to pixel blocks (130) within each segment (120) based on the measured local motion complexity.

2. *(Currently Amended)*   The method of claim 1, wherein the step of measuring comprises:

determining a sum-of-absolute differences between pixel blocks (130) of the picture frame (110a) and corresponding pixel blocks (130) of an adjacent frame (110b); and

summing the measured sum-of-absolute differences associated with of pixel blocks (130) within each segment (120).

3. *(Currently Amended)*   The method of claim 2, wherein the step of assigning comprises using a distribution function configured to assign the number of candidate vectors based on the measured local motion complexity of each segment (120).

4. *(Original)*   The method of claim 3, wherein the distribution function is based on a maximum, minimum and average of the measured sum-of-absolute differences of the segments.

5. *(Original)*   The method of claim 4, wherein the distribution fuction is further based on predetermined values for a maximum, minimum and average number of candidate vectors per block.

6. *(Currently Amended)*   The method of claim 1, further comprising performing motion estimation on the pixel blocks (130) using the number of candidate vectors assigned to each pixel block (130).

7. *(Currently Amended)*   A system for distributing candidate vectors, the system comprising:

means for dividing a picture frame (110) into a plurality of segments (120), each segment (120) comprising a plurality of pixel blocks (130);

means for measuring local motion complexity for each segment (120); and

means assigning a number of candidate motion vectors to pixel blocks (130) within each segment (120) based on the measured local motion complexity.

8. *(Currently Amended)*   The system of claim 7, wherein the means for measuring comprises:

means for determining a sum-of-absolute differences between pixel blocks (130) of the picture frame (110a) and corresponding pixel blocks (130) of an adjacent frame (110b); and

means for summing the measured sum-of-absolute differences associated with of pixel blocks (130) within each segment (120).

9. *(Currently Amended)*   The system of claim 8, wherein the means for assigning uses a distribution function configured to assign the number of candidate vectors based on the measured local motion complexity of each segment (12).

10. *(Original)*   The system of claim 9, wherein the distribution function is based on a maximum, minimum and average of the measured sum-of-absolute differences of the segments.

11. *(Original)*   The system of claim 10, wherein the distribution fuction is further based on predetermined values for a maximum, minimum and average number of candidate vectors per block.

12. *(Currently Amended)*   The system of claim 7, further comprising means for performing motion estimation on the pixel blocks (130) using the number of candidate vectors assigned to each pixel block (130).